



## UNITED STATES DEPARTMENT OF COMMERCE

## Patent and Trademark Office

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/317,477 05/24/99 EDEN G HT-103

EXAMINER

IM22/0424

JAMES M. DEIMEN

BEISNER, W. O.

320 N. MAIN STREET

ART UNIT

PAPER NUMBER

SUITE 300

ANN ARBOR MI 48104-1192

1744

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Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

# Office Action Summary

Application No.

09/317,477

Applicant(s)

EDEN, GIDEON

Examiner

William H. Beisner

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

## Status

- 1) ☒ Responsive to communication(s) filed on 24 May 1999 (Pre-Amendment).
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-7 is/are rejected.
- 7) ☒ Claim(s) 4 and 8-10 is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some \* c) ☐ None of the CERTIFIED copies of the priority documents have been:
1. ☐ received.
2. ☐ received in Application No. (Series Code / Serial Number) \_\_\_\_\_.
3. ☐ received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

- 14) ☒ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

## Attachment(s)

- 14) ☒ Notice of References Cited (PTO-892)
- 15) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 16) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 17) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 18) ☐ Notice of Informal Patent Application (PTO-152)
- 19) ☐ Other: \_\_\_\_\_

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## **DETAILED ACTION**

### ***Priority***

1. Applicant has not complied with one or more conditions for receiving the benefit of an earlier filing date under 35 U.S.C. 119(e) as follows:

An application in which the benefits of an earlier application are desired must contain a specific reference to the prior application(s) in the first sentence of the specification (37 CFR 1.78).

While the instant specification includes a reference to the provisional application, it is preferred that the language be changed to recite --This application claims the benefit of U.S. Provisional Application No. 60/086,503, filed May 22, 1998.-- so as to make it clear that benefit is being claimed.

### ***Drawings***

2. This application has been filed with informal drawings which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Eberly et al.(US 5,073,029).

The reference of Eberly et al. discloses an instrument which includes a multiplicity of light-sensor combinations. The combinations include an LED array, 6, and a photodetector array, 3. The device also includes a calibration means which includes a driver means, 7 and 9, for separately driving each light source at a specific energy level; a processor means (microprocessor); and an algorithm for compensating for the difference in output signals among the LED/photodetector pairs (See column 4, lines 39-43; column 8, lines 45-67; and column 9, lines 18-35).

Note, this device is capable of detecting microbial growth as is intended by the device of the instant claims.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claims 1-3 and 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eden et al.(US 5,366,873) in view of Mudd (US 3,773,426) and Eberly et al.(US 5,073,029).

The reference of Eden et al. discloses a system for detecting microbial growth in test vials containing growth media and dye material. The reference discloses the use of an LED/photodetector pair for detecting microbial growth.

The reference first differs by failing to disclose the use of a plurality of vials and corresponding pairs of LED/photodetector combinations.

The reference of Mudd discloses that it is known in the art to detect a plurality of microbial samples simultaneously using a plurality of vessels and light source/detector pairs.

In view of this teaching, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of the primary reference to include a plurality of test vials and corresponding LED/photodetector pairs for each test vial for the known and expected result of facilitating the detection of a plurality of test

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samples. Note, the courts have held that mere duplication of parts has no patentable significance unless a new and unexpected result is produced. *In re Harza*, 124 USPQ 378 (CCPA 1960).

The claims further differ by reciting the use of a calibrating means for calibrating the plurality of LED/photodetector pairs.

The reference of Eberly et al. discloses that it is known in the art to employ a plurality of LED/photodetector pairs to simultaneously detect a plurality of samples in a test device. The reference further discloses that it is known in the art to provide a calibration means for compensating for variability between LED/photodetector pairs in the detection system. The reference of Eberly et al. discloses an instrument which includes a multiplicity of light-sensor combinations. The combinations include an LED array, 6, and a photodetector array, 3. The device also includes a calibration means which includes a driver means, 7 and 9, for separately driving each light source at a specific energy level; a processor means (microprocessor); and an algorithm for compensating for the difference in output signals among the LED/photodetector pairs (See column 4, lines 39-43; column 8, lines 45-67; and column 9, lines 18-35).

In view of this teaching, it would have been obvious to one of ordinary skill in the art to modify the system of the modified primary reference so as to include the calibration system disclosed by Eberly et al. for the known and expected result of providing a means recognized in the art to compensate for variability between the

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LED/photodetector pairs within the system so as to reduce variability between the detection locations in the array of pairs in the system.

With respect to the use of an incandescent lamp, the reference of Eden et al. discloses the use of either an LED or incandescent lamp (See column 3, lines 3-13).

With respect to the use of fiber optic arrays, the reference of Mudd discloses the use of a fiber optic array, 20.

In the absence of a showing of criticality and/or unexpected results, it would have been obvious to one of ordinary skill in the art to determine the optimum light source while maintaining the required light to detect the microbial growth. The calibration system of Eberly et al. would be capable of compensating for variability between light sources other than LEDs.

***Allowable Subject Matter***

8. Claims 4 and 8-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. The following is a statement of reasons for the indication of allowable subject matter: While the prior art of record discloses a calibration system for a plurality of light source/photodetector pairs which employs a microprocessor and algorithm, the prior art of

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record fails to teach or fairly suggest the use of an algorithm using the variables as recited in claim 4.

### ***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The reference of Humphries et al.(US 5,104,804); Di Guiseppi et al.(US 5,164,796) and Berndt et al.(US 5,427,920) are cited as prior art references which pertain to microbial detection systems.

The references of May et al.(US 4,685,074) and Hart et al.(US 4,857,944) are cited as prior art references which pertain to calibration means for optical detection pairs.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William H. Beisner whose telephone number is (703) 308-4006. The examiner can normally be reached on 6:40 AM to 4:10 PM, alternate Mondays off..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert J. Warden can be reached on (703) 308-2920. The fax phone numbers for the organization where this application or proceeding is assigned are (703)



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305-7718 for regular communications and (703) 305-3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



William H. Beisner  
Primary Examiner  
Art Unit 1744

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April 21, 2000